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EXAMINER	
LEE, HWA C	

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/090,804	OBRADOR, PERE	
	Examiner	Art Unit	
	Hwa C Lee	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22,26,28 and 29* is/are rejected.

7)☒ Claim(s) *23-25 and 27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 March 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed 07/06/2004.

Response to Arguments

2. Applicant's arguments, see page 7, last paragraph – page 8, 3rd paragraph, filed 07/06/2004, with respect to the rejection(s)of claim(s) 1-20 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tamama et al., U.S. Patent Application No. 2002/0135683 and Butler et al. al., U.S. Patent No. 6,720,968 as described below.

3. In regards to claim 21, the applicant requests a detailed explanation of how the prior art teaches the limitations of instant claim. As applied to claims 1-20 above, a new ground(s) of rejection is made in view of Tamama et al., U.S. Patent Application No. 2002/0135683 and Butler et al. al., U.S. Patent No. 6,720,968 as described below. Tamama et al. explicitly teaches using a bust mode of operation and Wyman explicitly teaches storing image frames in aging buffer in raw format, which specifically is a higher resolution than video resolution level. Since the same image frames captured are stored in aging buffer, said raw images (uncompressed) are designated as both still images and video images. When the user decides to permanently save the image frames, then those image frames are designated as still images. Any image frames not selected by the user as still images are thus designated as video frames. In addition, Wyman explicitly teaches converting the 3M pixel viewable frame to low-resolution

motion video frame of same size (Paragraph [0031), which specifically is designating said image frames as video frames.

4. In regards to claims 23-25, the examiner agrees that the prior do not teach said limitation of marking memory locations corresponding to the burst mode, and thus the claim rejections for claims 23-25 are withdrawn. However, claims 23-25 are objected to as being dependent on rejected claim.

5. In regards to claim 26, the applicant's argument is not persuasive. Tamama et al. explicitly teaches burst mode operation and Wyman explicitly teaches acquiring still image frames at higher resolution than video resolution level as applied to claim 21 above.

Claim Objections

6. The applicant has overcome the claim objections of previous office action.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-4, 8-10,12-13, 17-19, 21-22, and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman, U.S. Patent Publication No. 2003/0112347 in view of Tamama et al., U.S. Patent Publication No. 2002/0135683, and further in view of Butler et al., U.S. Patent No. 6,720,968.

10. In reference to claim 1, Wyman teaches the following limitations:

storing the high resolution still images in raw format in a memory during acquisition of the high resolution still images

- Wyman teaches storing frames in buffer in uncompressed format, which specifically is in raw data form (paragraph [0059], lines 1-4).

processing the video frames stored in the memory using a video pipeline; and

- Processing video data through a series of image processing steps specifically is a video pipeline. Wyman teaches performing A/D conversion on the images captured by sensors (Paragraph [0017]), applying jitter reduction to the captured video frames, storing said video frames in full resolution in the buffer (204), converting said same stored video frames to a lower pixel resolution by compressing the video frames, and converting the video data back to analog form before storing. (Paragraphs [0031], lines 1-14 and [0042], lines 9-14). Said steps specifically make up a video pipeline.

processing the high resolution still images acquired using a high resolution still image pipeline,

- Frames are saved by transferring the frame to an external device. This external device...can save, edit, print, and transfer, video images...having still frame recording capability (paragraph [0056], lines 6-13). Save, edit, print, and transfer are all interpreted as "*processing*" the high-resolution still image. In addition, Wyman teaches an alternative of compressing the high-resolution images stored in the buffer (204) in order to reduce the buffer requirement (Paragraph [0059], lines 15-24). Compression of high resolution still images specifically is image processing. Wyman also teaches a VTR state (302), wherein the stored image frames are viewed, edited, or transferred to other devices (Paragraph [0035]). Said editing the stored still images specifically is processing the still images.

wherein the high resolution still image pipeline runs concurrently with the video pipeline

- Still frames are buffered while simultaneously recording motion video (paragraph [0063], lines 1-3). {Both the still image and video are processed in parallel}.

11. While Wyman does not explicitly use the terms, "burst mode", said burst mode specifically is taught by Wyman.

- Wyman teaches simultaneous processing of digital video frames and high-resolution still images (paragraph [0008], lines 11-14; paragraph [0028], lines 4-10; and paragraph [0035], lines 1-3).
- Since motion video in essence is comparable to a set of still images captured in "burst mode", said burst mode specifically is capturing of still images. In addition, Wyman teaches storing the uncompressed still images at a various frame rate

including a high frame rate (capturing every frame; 1 frame every 2/3 sec), which specifically is processing in a burst mode (paragraph [0007], lines 1-5 and paragraph [0037]). Capturing more than one frame per second is considered in the art to be in burst mode, while capturing more than 15 frames per second is considered video.

12. In addition, ***"burst mode"*** is a well-known still image capturing method and is specifically taught by Tamama et al. (FIGS. 1a-1b, 2 and Paragraphs [0038]-[0042], [0055]-[0057]). In addition, Tamama et al. explicitly teaches still image pipeline (FIG 1C).

a method for concurrently processing digital video frames and high resolution still images in burst mode, comprising:

- Wyman teaches concurrently acquiring processing digital video frames and high-resolution still images by using buffer aging as applied above. In addition, Wyman teaches processing high-resolution still images in burst mode since more than one frame is captured and processed per second. Further, Tamama et al. explicitly teaches processing high-resolution images in burst mode as applied above.

acquiring video frames and high resolution still images in burst mode from one or more image sensors

- Wyman teaches using a plurality of charged coupled device (CCD) arrays for capturing both video and still images (Paragraph [0017]).

storing the video frames and the high resolution still images in raw format in a memory during acquisition of the high resolution still images in burst mode

- Wyman explicitly teaches storing image frames in raw format while recording the video frames in low resolution as applied above.

processing the high resolution still images acquired during the burst mode using a high resolution still image pipeline

- Wyman explicitly teaches processing the still images acquired during the burst mode using high-resolution still image pipeline as applied above. In addition, Tamama et al. explicitly teaches capturing still images in high resolution during burst mode and processing said high-resolution still images using high resolution still image pipeline as applied above.

13. Wyman is silent to the priority of capturing and processing of said still images and video frames, but Tamama et al. hints at said priority by allowing burst mode operation of still image capture. In order to perform burst mode still image capture and process, said images must first be written to buffer before image processing. Because image processing slows down the time between teach still image captured, it is necessary that image processing be performed after the still images are read from the buffer. Thus, said burst mode specifically is setting a high priority to capturing and storing (temporarily in a buffer) the images and setting a low priority to image processing via image pipeline (image processing). Further, Butler et al. teaches setting a high priority to all write operations (acquiring and storing images) and setting a low priority to all read operations (Col. 2, lines 1-59).

14. It would have been obvious to take the teachings of Wyman and to add from Tamama et al. the explicit teachings of burst mode for capturing still images at a higher rate and explicit teachings of still image pipeline. Although Wyman teaches said burst mode and still image pipeline, said teachings are not explicit. However, said burst mode and still image pipeline are well known standard in the art. The standard bust mode allows for multiple still images to be captured per second, which allows the user to avoid missing any important still image, especially during a sporting event. Thus, said burst mode allows the user to capture more continuous real-time still images and reduce the chance of missing any important still image shots. In addition, said still image pipeline is required in order to perform image processing after said still image have been acquired using said burst mode. Thus the acquired still images can be edited and modified as desired by the user. For example, still image can be cropped and compressed for easy transmission to a computer system for distribution to family and friends.

15. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention to take the teachings of Wyman and Tamama et al. and to add from Butler et al. the method of setting a high priority to image and video capture and setting a low priority to image an video processing. It is well known in the art that image processing is the bottleneck that slows down real-time image and video capture. Thus, in order to perform real-time image and video capture at high frame rate, the processing time between images and video frames captured must be minimized. In order to minimize said processing time, image processing (via pipelines) must be performed with low priority, and Butler et al. explicitly teaches this. Thus, said priority setting method of

Butler et al. allows the user to increase frame rate and increase the performance of real-time image and video acquisition, which specifically improves the overall real-time performance of the digital camera in capturing and processing still images and video frames.

16. In reference to claim 2, Wyman, Tamama et al., and Butler et al. teach all limitations of claim 1 as described above. In addition, Wyman teaches ***wherein the acquiring step includes acquiring the video frames and the high resolution still images in real time***

- Video frames are held in the buffer for a limited time because the images are captured and stored in real time. The buffer must be purged to make room for the next real time images (Paragraph [0007], lines 1-8).
- Continuously saved video means that there are no delays between recordings and since the images are taken from the video, interpreted as acquiring in ***real time*** (Paragraph [0008], lines 1-3).

17. In reference to claim 3, the same basis and rationale for claim rejection as applied to claim 2 are applied.

18. In reference to claim 4, Wyman, Tamama et al., and Butler et al. teach all limitations of claim 1 as described above. In addition, Wyman teaches ***further comprising down sampling the high-resolution still images to be inputted into the video pipeline.***

- Converting the frame, the high-resolution still image, to a lower pixel resolution video format is specifically "*down sampling*". Down sampling allows fast and

efficient transfer to video format with minimum space requirement (Paragraph [0042], lines 9-14).

19. In reference to claim 8, Wyman, Tamama et al., and Butler et al. teach all limitations of claim 1 as described above. In addition, Wyman teaches the limitation of ***further comprising compressing the video frames and the high-resolution still images***.

- The frame is then converted to motion video format and written to the motion video media. Specifically, motion video format implies that the frame is converted to a lower pixel resolution. It may additionally be compressed using any appropriate compression algorithm (paragraph [0042], lines 9-14). This allows the user to gain the advantages of compressing the video frames and high-resolution still images, which minimizes memory space requirement for storage.

20. In reference to claim 9, the basis for the claim rejection is the same as described for claim 1 above.

21. In reference to claim 10, the basis for the claim rejection is the same as described for claim 4.

22. In reference to claim 12, the basis for the claim rejection is the same as described for claims 2 and 3.

23. In reference to claim 13, the basis for the claim rejection is the same as described for claim 1.

24. In reference to claim 17, Wyman teaches ***a computer readable medium providing instructions for concurrently processing digital video frames and high resolution still images in burst mode.***

- Wyman teaches that the camera includes a programmable processor in communication with a random access memory. Memory contains a control program comprising a plurality of processor executable instructions which, when executed on processor, control the operation of camera (paragraph [0019], lines 3-8). Random access memory is a computer readable medium providing the said instructions of claim 17.
- The remaining limitations of claim 17 are rejected using the same basis described for claim 1 above.

25. In reference to claim 18, the basis for the claim rejection is the same as described for claim 2.

26. In reference to claim 19, the basis for the claim rejection is the same as described for claim 4.

27. In regards to claim 21, the same basis and rationale for claim rejection as applied to claims 1 and 9 are applied.

A method of processing image data captured by a digital video camera, comprising: acquiring image frames from an image sensor;

- Wyman explicitly teaches acquiring image frames form CCD arrays as applied to claim 9 above.

in a non-burst-mode of operation, processing acquired image frames using a video pipeline to compress acquired images to a video resolution level

- Wyman teaches storing video frames in low resolution appropriate for video (Paragraphs [0024]-[0031]).

and storing the compressed image frames in a burst mode of operation,

- Both Wyman and Tamama et al. explicitly teach storing compressed image frames in a burst mode of operation as applied to claim 1 above.

storing acquired image frames in a memory at a still image resolution level higher than the video resolution level, wherein at least one of the uncompressed image frames is designated a still image frame and other uncompressed image frames are designated video image frames;

- As applied to claim 1 above and just previously, Wyman teaches storing image frames in aging buffer in raw (uncompressed format), which can be stored as high resolution (higher than video resolution) (Paragraphs [0024]-[0031]). Said raw images can also be stored at lower resolution as video frames.

processing the still image frames stored in the burst mode of operation using a still image pipeline; and processing the video image frames stored in the burst mode of operation using the video pipeline.

- As applied to claim 1 above, Tamama et al. explicitly teaches processing still image frames in burst mode using still image pipeline, and Wyman teaches processing video image frames using video pipeline.

28. In regards to claim 22, Wyman teaches ***wherein the compressed image frames stored in the non-burst mode of operation are stored in a continuous memory sequence in the non-burst mode of operation.***

- Wyman teaches storing compressed images in the buffer (204) (Paragraph [0059], lines 15-20), and incrementing the buffer each time the next image frame is stored in the buffer (Paragraph [0044]-[0045] and FIG. 5A, No. 512).

29. In regards to claim 28, the same basis and rationale for claim rejection as applied to claim 21 are applied.

The method of claim 21, wherein processing the video image frames stored in the burst mode of operation comprises generating a compressed sequence of image frames at the video resolution level from still image frames and video image frames stored in the memory in the burst mode of operation.

- As applied to claims 1 and 17, and 21 above, Wyman teaches taking the image data captured by the sensor, which has been A/D converted and jitter reduction applied, and storing the image data at various frame rates (including burst mode) in the buffer. The same image data stored in the buffer in further converted to a lower resolution video format, which is then compressed. Thus said compressed video data specifically is a compressed sequence of image frames at the video resolution level, which is generated from still image frames (image data stored in buffer) and video image frames (image data converted to motion video format).

30. In regards to claim 29, the same basis and rationale for claim rejection as applied to claims 24 and 28 are applied.

The method of claim 28, wherein generating the compressed sequence of image frames comprises storing the compressed sequence of image frames at a memory location separate from where the image frames are stored in the non-burst-mode of operation.

31. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman, U.S. Patent Publication No. 2003/0112347 in view of Tamama et al., U.S. Patent Publication No. 2002/0135683, and further in view of Butler et al., U.S. Patent No. 6,720,968, and further in view of Pavley et al., U.S. Patent Application Publication No. 2002/0054116.

32. In reference to claim 14, Wyman, Tamama et al., and Butler et al. teach all limitations of claim 9 as described above. Wyman teaches that the camera includes a programmable processor in communication with a random access memory (paragraph [0019], lines 3-4). In addition, Wyman describes a method to capture high-resolution still photographs, and thus a programmable processor is a microprocessor. Although Wyman does not explicitly teach ***an application specific integrated circuit (ASIC)***, said ASIC specifically is a well-known standard, which is comparable to a CPU for performing application specific functions.

33. Pavley et al., an analogous art, teaches a method and apparatus for editing heterogeneous media objects comprising still image and video frames (Paragraph [00132]). Said apparatus comprises CCD, DSP and ASIC (Paragraphs [0032] – [0036]). Selection of an ASIC is a design choice since an ASIC is comparable to CPU and DSP and thus is replaceable by a DSP as taught by Pavley et al.

34. In addition, the limitation of a digital signal processor (DSP) is well known in the art. Processing a digital image or motion video to adjust the picture quality and or data size involves a use of a digital signal processor. It would have been obvious to choose a processor selected from a microprocessor, ASIC, and DSP in order to gain the following advantages:

- The microprocessor controls all functions of the camera.
- ASIC performs specific application as instructed by the microprocessor.
- DSP controls processing of high-resolution still image and motion video.
- Selecting from the above processors improves efficiency since individual processors have specific functions and thus can run in parallel with each other.

35. Claims 5, 11, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman, in view of Tamama et al., and further in view of Butler et al. as applied to claims 1-4, 9-10, 12-13, 17-19 above, and further in view of Matsumoto, U.S. Patent Publication No. 2003/0052986.

36. In regards to claim 5, Wyman, Tamama et al., and Butler et al. teach all limitations of claim 1 as described in paragraph 4 above but do not explicitly teach ***wherein the processing the high resolution still images step includes processing the video frames and high resolution still images into a standard format by an image/video transcoding agent.*** Matsumoto teaches the said limitations.

- Matsumoto teaches capturing both still image and video frames, wherein said still image and video frames are processed with an apparatus comprising still image codec unit (102), moving image codec unit (103), CPU (101), image processing

unit (104), ROM (106), RAM (107), LCD control unit (111), and data storage unit (108). Said image processing apparatus specifically reads on video and still image pipeline hardware as disclosed by the applicant as applied to claim 1 above.

- The still image codec unit includes a JPEG encoder for generating JPEG still image data by executing a JPEG compression process for still image data obtained by the camera unit and image processing unit (paragraph [0041], lines 1-5). Still images are processed into a standard JPEG format.
- The moving image codec unit includes an MPEG encoder for generating MPEG moving image data by executing an MPEG compression process for moving image data obtained by the camera unit and image processing unit (paragraph [0042], lines 1-5).
- In addition, image processing further comprises A/D conversion (Paragraph [0039]), gamma conversion, color space conversion, white balance, AE, and flash correction (Paragraph [0040]).

37. It would have been obvious to someone of ordinary skill in the art to take the teachings of Wyman Tamama et al., and Butler et al. and to add from Matsumoto the capability of processing the still images and video frames into standard format in order for the data to be easily recognized and displayed by plurality of display apparatus. This allows the images on video to be accessed and displayed using conventional programs like Adobe © Photoshop and Windows © Media Player, for example. Thus, the images standard format will be easily and widely distribute and applied to a plurality

of application, which improves the accessibility of the still images by a plurality of users and image processing applications.

38. In reference to claim 11, the basis for the claim rejection is the same as described for claim 5.

39. In reference to claim 20, the basis for the claim rejection is the same as described for claim 5.

40. Claims 6-7, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman in view of Tamama et al., and further in view of Butler et al. as applied to claims 1-4, 9-10, 12-13, 17-19 above, and further in view of Bittner et al., U.S. Patent No. 6,330,400.

41. In reference to claim 6, Wyman, Tamama et al., and Butler et al. teach all limitations of claim 1 as described above, wherein the video frames are downsampled as applied to claim 4 above, but do not explicitly teach ***wherein the processing the video frames step comprises: demosaicing the video frames; and color correcting the video frame***.

42. Bittner et al. teach the said limitation in the following:

- The ASIC is structured to perform the desired image processing functions including, but not limited to:
    1. Demosaic;
    2. Color correction, compensation and other image quality improvement;

7. Image compression

(Col. 10, lines 35-49) {Image compression is "*downsampling*"}.

43. It would have been obvious to someone of ordinary skill in the art to take the teachings of Wyman in view of Voss et al. and to add from Bittner et al., a processing step comprising: "*downsampling and demosaicing the video frames; and color correcting the video frames*" in order to gain the following advantages:

- Downsampling allows conversion of the high-resolution images into lower resolution motion video;
- Demosaicing allows true reproduction of original image colors; and
- Color correcting the demosaiced video frames allows color correction based on the original illumination of the image when recorded.

44. In reference to claims 7, the same basis and rationale for claim rejection as applied to claim 6 above are applied.

45. In reference to claims 15-16, the basis for the claim rejection is the same as described for claims 6-9 are applied.

46. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wyman in view of Tamama et al., and Butler et al. as applied to claims 1-4, 9-10,12-13, 17-19, 21-25, and 28-29, and further in view of Wong et al.

47. In regards to claim 26, Wyman, Tamama et al. and Butler et al. teach the method of claim 25, wherein the images are processed using a pipeline, but do not explicitly teach ***further comprising processing image frames acquired in the burst mode of operation using the video pipeline to generate a burst video sequence***.

48. Wong et al. teaches capturing images in burst mode (Paragraph [0036]), wherein the captured images are written in non-volatile memory using a plurality of write pipelines (Paragraph [0038] and FIG. 3), which specifically is a video pipeline. In addition, Wong et al. teaches converting the image data stored in memory to a video format in order to display the stored images as video. Since said image data was captured in burst mode, the video generated from said burst image frames specifically is a burst image sequence.

49. It would have been obvious to one of ordinary skill in the art to take the teachings of Wyman and Voss, and to add from Wong et al. a digital imaging system, which incorporates a nonvolatile high density, high speed analog/multi-level memory to quickly store a large amount of image data from an image sensor, The stored analog data is then held in the analog/multi-level memory and transmitted in portions to image processing and compression circuits. As a result, sustained high speed image capture is possible because the rate and duration of the image capture is no longer limited by the low speed constraints of image processing and compression. In addition, all references are directed to capturing both still images and video data.

Allowable Subject Matter

50. Claims 23-25 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

51. Claims 23-25 are directed to marking the location in the continuous memory sequence corresponding to the burst mode. The prior art of record to not explicitly teach said limitation.

52. Claim 27 is directed to inserting a pointer from the burst video sequence to a location in the continuous memory sequence where subsequent image frames are stored in the non-burst-mode of operation. The prior art of record to not explicitly teach said limitation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hwa C Lee whose telephone number is 703-305-8987. The examiner can normally be reached on M-F 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hwa C Lee

Examiner
Art Unit 2672

HCL
10/18/04

MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600